CASE STUDY

FLSmidth succeeds with Octave Forte 3DWorx on Kazakhstan project



Key facts:

Company: FLSmidth

Website: www.flsmidth.com

Industry: Metals & Mining

Country: Kazakhstan

Octave products used: Forte 3DWorx *(CADWorx Plant Professional)*

Key benefits:

- Addressed design standardization challenges on a fast track schedule
- Promoted effective and efficient design collaboration across all teams

FLSmidth is a leading supplier of equipment and services to the global cement and minerals industries, including engineering and design for complete processing facilities. The company's 15,000 employees in 50 countries are engaged in developing new solutions to meet the world's future energy and emissions challenges, with 99% of projects outside its Denmark home market.

Identifying goals

Kazakhmys PLC awarded FLSmidth a US$63 million contract to design a copper concentrator and provide all of the process technology for a new plant at the company's Bozshakol copper mine in Kazakhstan. The project was to produce 5 million tons of ore per year and had a capital cost of US$1.9 billion. A global leader in copper, Kazakhmys operates 16 mines, eight concentrators and a copper smelter.

FLSmidth's assignment included basic and detailed engineering plus the company's proprietary technologies for crushing, milling, flotation, thickening, filtering, cycloning and pumping. It also included regrind mills, conveyors and feeders and erection supervision, start-up and commissioning services.

As part of detail engineering, FLSmidth brought in a U.S. engineering firm with expertise in fire protection systems and engaged the FLSmidth design offices in Salt Lake City, Utah, and Chennai, India, with each entity concentrating in its process expertise to enhance project synergies.

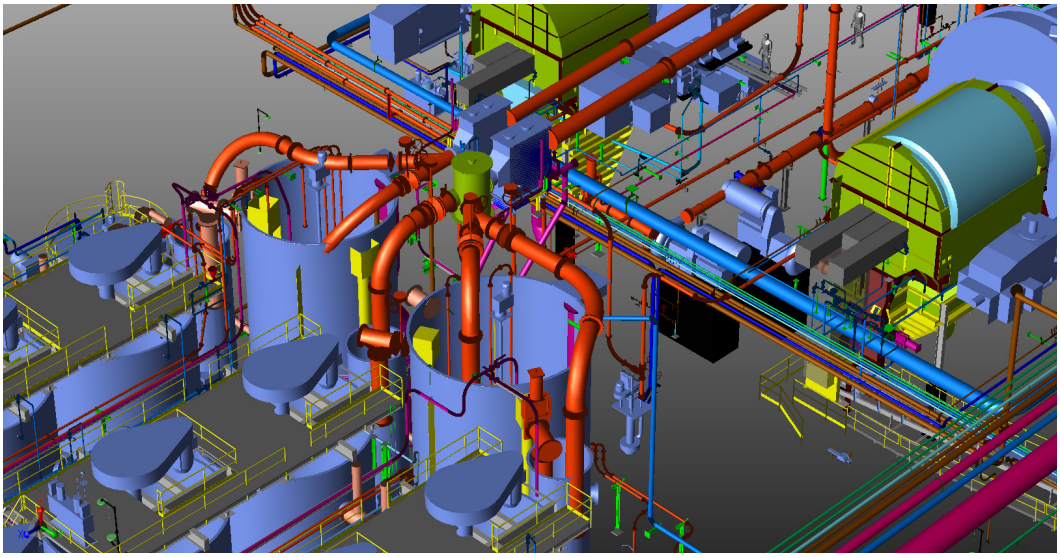
Overcoming challenges

One project challenge was that the FLSmidth India office was running an older version of Forte 3DWorx, the U.S. office had a current version and the U.S. subcontractor had no Forte 3DWorx experience. Proceeding with these different solution versions would complicate communications and be detrimental because pipe material and support data, isometric configurations and other information would vary and, if left unchecked, would result in a nonstandard design from each stakeholder.

This would make it difficult to stay within budget and could delay the schedule. FLSmidth U.S. would then face monetary sanctions according to the contract's terms.

"Forte 3DWorx allowed for standardization plus effective management of engineering design data by providing three pillars: a common design platform, information sharing and information flow."

Javier Barros
Staff designer of mechanical and piping, FLSmidth



Realizing results

With an extremely aggressive schedule and the need to integrate each player into one platform, the project leaders knew they needed the capabilities of Forte 3DWorx to standardize the design and promote effective design collaboration across all teams.

"We achieved platform integration by allowing the FLSmidth India office read-only access to the FLSmidth Salt Lake City office's configurations in the current version of Forte 3DWorx," Barros added.

The team in India had efficient and easy access files located on U.S. servers to complete design work, experiencing no delays. In addition, the U.S. subcontractor also quickly adopted the current version of Forte 3DWorx to complete their design scope. With Forte 3DWorx, FLSmidth was able to centralize control of material specifications and make any update in the configuration files immediately, and it completed work on schedule.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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